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Notice of Allowability	Application No.	Applicant(s)	
	10/025,207	COMB, JAMES W.	
	Examiner	Art Unit	
	Stephen J. Lechert Jr.	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the election with traverse of 4-9-2004.
2. ☒ The allowed claim(s) is/are 1-29.
3. ☒ The drawings filed on 18 December 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|---|---|


 Stephen J. Lechert Jr.
 Primary Examiner
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DETAILED ACTION

- 1. Applicant's election with traverse of Group I the method in Paper date 4-9-2004 is acknowledged. Applicant's arguments are persuasive and accordingly the restriction election requirement is withdrawn. Action on the merits of claims 1-29 follows:**
- 2. Claims 1-29 are free of the prior art. The following is an examiner's statement of reasons for allowance:**

The invention relates to a extrusion apparatus and method wherein the apparatus has an extrusion head including a liquefier that receives a solid element of modeling material wherein the modeling material is heated and the apparatus outputs a flow of modeling material at an output flow rate while the extrusion head moves along a predetermined tool path at an extrusion head velocity, the apparatus using a material advance mechanism to supply the solid element of modeling material to the liquefier at an input rate which controls the output rate. The invention provides a method of controlling the output flow rate by determining a extrusion head velocity profile based on the tool

path and controlling the input rate of model material to the liquefier to produce an output flow rate of modeling material from the liquefier that is proportional to a current extrusion head velocity corresponding to the extrusion head velocity profile.

The apparatus and method as claimed has not been taught either singularly or in combination by the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Comb teaches an method and apparatus for matching the extrusion rate of a liquefier which extrudes a flow of material by adjusting the volumetric rate of the material into the liquefier to account to account for a predicted melt flow component of material being extruded the liquefier. Comb does not teach the instant method of controlling the input rate of the modeling

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material into the liquefier to produce an output flow rate of modeling material from the liquefier that is proportional to a current extrusion head velocity corresponding to the extrusion head velocity profile.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Lechert Jr. whose telephone number is 571-272-1203. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Stephen J. Lechert Jr.

Primary Examiner

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